

Title (en)
CIRCUIT FOR CORRECTING THE POWER FACTOR

Title (de)
SCHALTUNG ZUR KORREKTUR DES LEISTUNGSFAKTORS

Title (fr)
CIRCUIT DE CORRECTION DU FACTEUR DE PUISSANCE

Publication
EP 1092260 B1 20090408 (DE)

Application
EP 00912383 A 20000218

Priority
• DE 0000461 W 20000218
• DE 19914505 A 19990330

Abstract (en)
[origin: US6266256B1] The invention relates to a circuit for power-factor correction having a rectifier (14) which can be connected on the input side to an AC voltage source (10) and which is connected on the output side to at least one series circuit comprising a capacitor (CS1) and a diode (DS1), with the diode (DS1) being arranged such that the capacitor (CS1; CS2) cannot be charged through the diode (DS1; DS2) by the output signal from the rectifier (14), a first and a second electronic switch (T1, T2) connected in series as part of a half bridge or full bridge, each having a freewheeling diode (DF1; DF2) connected in parallel with the switch (T1; T2) and, with the [lacuna] formed by the junction point between the first and second switches (T1, T2) [lacuna] an output connection of the half bridge or full bridge is on the one hand connected via an inductance (L) to a point on the connection of the capacitor (CS1) and diode (DS1) of each series circuit comprising a capacitor (CS1) and a diode (DS1), and on the other hand forms a connection for a load (LD), and the signal at this connection during operation is at a considerably higher frequency than the output signal from the AC voltage source (10), an energy-storage capacitor (CS) which is connected in parallel with the two switches (T1, T2) and at least one further diode (DP1; DP2) which is arranged between the energy-storage capacitor (CS) and the rectifier (14) in such a manner that the energy-storage capacitor (CS) cannot be discharged through the rectifier (14).

IPC 8 full level
H02M 1/12 (2006.01); **H02M 7/12** (2006.01); **G05F 1/70** (2006.01); **H02M 1/00** (2007.01); **H02M 1/42** (2007.01); **H02M 3/155** (2006.01); **H05B 41/28** (2006.01)

CPC (source: EP KR US)
G05F 1/70 (2013.01 - EP US); **H02M 1/12** (2013.01 - KR); **H02M 1/425** (2013.01 - EP US); **H05B 41/28** (2013.01 - EP US); **H05B 45/355** (2020.01 - EP); **Y02B 70/10** (2013.01 - EP US)

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
US 6266256 B1 20010724; AT E428213 T1 20090415; CA 2333671 A1 20001026; CA 2333671 C 20061212; CN 1130815 C 20031210; CN 1297604 A 20010530; DE 19914505 A1 20001005; DE 50015615 D1 20090520; EP 1092260 A1 20010418; EP 1092260 B1 20090408; JP 2002542757 A 20021210; JP 4503859 B2 20100714; KR 100635680 B1 20061017; KR 20010043952 A 20010525; WO 0064037 A1 20001026

DOCDB simple family (application)
US 70130100 A 20001128; AT 00912383 T 20000218; CA 2333671 A 20000218; CN 00800478 A 20000218; DE 0000461 W 20000218; DE 19914505 A 19990330; DE 50015615 T 20000218; EP 00912383 A 20000218; JP 2000613064 A 20000218; KR 20007013543 A 20001130